



READ ME

September 2001

CMB7 was updated and enhanced in 1997 with the development of CMB8 and its documentation by Desert Research Institute (DRI). These products were delivered to EPA in 1998. When we initially reviewed these materials we decided that the documentation (user's manual) could stand some improvement to make it reconcile better with the model behavior. Accordingly, we revised the draft manual. We also noted some errors and other anomalous behavior in CMB8 that we thought should be corrected. We have implemented these corrections and have designed some enhancements which we are incorporating in a new version of CMB8. We hope to release this new version, along with improved documentation, for *beta* testing soon. In the meanwhile, we thought it was prudent to make available the original CMB8 (as provided by DRI), and in this *read me* we describe some known areas which deserve special care by users. Note that this is the same (executable) code as DRI posts on its anonymous ftp site (<ftp://eafs.dri.edu/cmb80/model/>). Based on comparison of test cases, we believe that CMB8 gives the same numerical results as those from CMB7. If run-time problems (model chokes or other anomalous behavior) are encountered, please direct these to the attention of Dr. John Watson at DRI: JohnW@dri.edu

User beware:

1. Undocumented and unpredictable runtime errors may occur. These may relate to “stuck pointers” and/or memory buffers that fail to purge properly.
2. When AUTofit is invoked, only the results from the last site in the series appear in the Output window.
3. PM-10. When two complementary samples (same site and sampling period) - COARSe and FINE - are selected and run using AUTofit, CMB8 should give results for these as well as for PM-10 (their assumed sum). However, only results for FINE and TOTAL will be displayed in the Output window (COARS is omitted). (The output files, however, will have the proper information in them.)
4. The averaging (AVG) function is trouble-prone and unreliable.
5. CMB8 insists that a fit be done before it will allow you to examine source profiles (PRO) or ambient data (RCN).
6. We strongly caution against using CMB8's internal graphing function, especially in combination with AUTofit. CMB8 sometimes hangs up and displays no graph, but instead the message: *Open Graphics Window*. When ‘OK’ is clicked, the graph screen is blank (grey) with GraphView in the center. Your machine must be rebooted to recover from this choke.

The Time Series function (under Graph) has also been seen to be problematic.

The following list describes the available files related to CMB8 (all described in Section 2.2 of the User's Manual). All data sets include ambient data input files and source profile data input files; some also include CMB8 Control Files (*.in8) and optional selection (*.sel) files.

	Contents
CMB8.ZIP	CMB8 install.exe (installation executable for the model) CMB8 source.exe (self-extracting compressed file containing the source code files for CMB8)
Documentation.ZIP	CMB8 manual.pdf (revised Adobe Acrobat version of user's manual - draft) CMB8 protocol.pdf (Adobe Acrobat version of the draft application/validation protocol for PM _{2.5} and VOC)
DataSets.ZIP	Portland.exe (self-extracting compressed file of the example PM ₁₀ data in Portland, OR from the Portland Aerosol Characterization Study) SJVF.exe (self-extracting compressed file of example fine particle (PM _{2.5}) data from several sites in California's San Joaquin Valley Air Quality Study) Boston.exe (self-extracting compressed file of example hydrocarbon canister data in Boston, MA, from the North American Research Strategy for Tropospheric Ozone (NARSTO) VOC source apportionment study in Boston) NARSTO.zip (7 MS Word files): complete documentation for NARSTO. Houston.exe (self-extracting compressed file of example continuous (hourly) hydrocarbon measurements in Houston, TX, from the Coastal Oxidant Assessment for Southeast Texas - COAST) NFRAQS.exe (self-extracting compressed file of PM _{2.5} measurements from the Northern Front Range Air Quality Study) ExecSummary.pdf (Adobe Acrobat): summary for NFRAQS.
